

# **Iowa Department of Natural Resources Voluntary Operating Permit**

**Name of Permitted Facility: Stuart Municipal Utilities**

**Facility Location: 114 N. Fremont, Stuart, Iowa 50250**

**712 SW 7<sup>th</sup> Street, Stuart, Iowa 50250**

**Air Quality Operating Permit Number: 04-VOP-002**

**Expiration Date: September 1, 2009**

**EIQ Number: 92-6115**

**Facility File Number: 01-07-003**

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**Responsible Official**

**Doug Christensen**

**Superintendent**

**114 N. Fremont Street**

**P.O. Box 370**

**Stuart, Iowa 50250**

**(515) 523-2915**

**Permit Contact Person for the Facility**

**Doug Christensen**

**Superintendent**

**114 N. Fremont Street**

**P.O. Box 370**

**Stuart, Iowa 50250**

**(515) 523-2915**

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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

**For the Director of the Department of Natural Resources**

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Douglas A. Campbell, Supervisor of Operating Permits Section

Date

# Table of Contents

|   |           |
|---|-----------|
| <b>I. Facility Description and Equipment List .....</b>                                     | <b>4</b>  |
| <b>II. Plant - Wide Conditions .....</b>  | <b>5</b>  |
| <b>III. Emission Point Specific Conditions .....</b>  | <b>8</b>  |
| <b>IV. General Conditions .....</b>   | <b>25</b> |
| A. Eligibility  |           |
| B. Duty To Supplement or Correct Application  |           |
| C. Access to the Permit   |           |
| D. Requirement to Apply for a Title V Permit  |           |
| E. Permit Renewal   |           |
| F. Duty to Comply   |           |
| G. Certification Requirement for Related Documents  |           |
| H. Voluntary Operating Permit Fee   |           |
| I. Inspection of Premises, Records, Equipment, Methods and Discharges                       |           |
| J. Duty to Provide Information  |           |
| K. Hazardous Release  |           |
| L. Excess Emissions and Excess Emissions Reporting Requirements                             |           |
| M. Notification Requirements for Sources that Become Subject to NSPS and NESHAP Regulations |           |
| N. Duty to Obtain Construction Permits  |           |
| O. Suspension, Termination, and Revocation of Voluntary Operating Permits                   |           |
| P. Property Rights  |           |
| Q. Fugitive Emissions   |           |
| R. Asbestos   |           |
| S. Open Burning   |           |
| T. Stratospheric Ozone and Climate Protection (Title VI) Requirements                       |           |
| U. Disclaimer   |           |
| V. Prevention of Accidental Release: Risk Management Plan                                   |           |
| W. Facility Operation   |           |
| X. Severability   |           |
| Y. Credible Evidence  |           |
| Z. Contacts List  |           |

## Abbreviations

|               |  |
|---------------|--|
| acfm.....     | actual cubic feet per minute                             |
| CFR .....     | Code of Federal Regulations                              |
| EP .....      | emission point   |
| EU.....       | emission unit  |
| EIQ .....     | emissions inventory questionnaire                        |
| ° F .....     | degrees Fahrenheit                                       |
| gr/dscf.....  | grains per dry standard cubic foot                       |
| hp.....       | horsepower   |
| IAC .....     | Iowa Administrative Code                                 |
| IDNR .....    | Iowa Department of Natural Resources                     |
| kW .....      | kilowatts  |
| lb/hr .....   | pounds per hour  |
| lb/MMBtu..... | pounds per million British thermal units                 |
| MMBtu/hr..... | million British thermal units per hour                   |
| MVAC.....     | motor vehicle air conditioner                            |
| MWe.....      | Megawatt electrical                                      |
| NA .....      | not applicable   |
| NAAQS .....   | National Ambient Air Quality Standards                   |
| NESHAP .....  | National Emission Standards for Hazardous Air Pollutants |
| NSPS .....    | New Source Performance Standards                         |
| ppmv.....     | parts per million by volume                              |
| scfm .....    | standard cubic feet per minute                           |
| SIC.....      | standard industrial classification                       |
| SIP .....     | State Implementation Plan                                |
| tpy.....      | tons per year  |
| USEPA .....   | United States Environmental Protection Agency            |
| VOP .....     | voluntary operating permit                               |

### **Pollutants**

|                        |   |
|------------------------|---|
| CO .....               | carbon monoxide   |
| HAP .....              | hazardous air pollutant(s)  |
| PM <sub>10</sub> ..... | particulate matter equal to or less than 10 microns in aerodynamic diameter |
| PM .....               | particulate matter  |
| NO <sub>x</sub> .....  | nitrogen oxides   |
| SO <sub>2</sub> .....  | sulfur dioxide  |
| VOC .....              | volatile organic compound(s)  |

# **I. Facility Description and Equipment List**

Facility Name: Stuart Municipal Utilities

Permit Number: 04-VOP-002

Facility Description: Electric Power Generation (SIC 4911)

## **Equipment List:**

| <b>Emission Point Number</b> | <b>Associated Emission Unit Number(s)</b> | <b>Associated Emission Unit Description</b> |
|------------------------------|---|---|
| <b>EP1</b>                   | <b>EU1</b>                                | <b>I.C. Engine – 960 hp</b>                 |
| <b>EP2</b>                   | <b>EU2</b>                                | <b>I.C. Engine – 1600 hp</b>                |
| <b>EP3</b>                   | <b>EU3</b>                                | <b>I.C. Engine – 1600 hp</b>                |
| <b>EP4</b>                   | <b>EU4</b>                                | <b>I.C. Engine – 2593 hp</b>                |
| <b>EP5</b>                   | <b>EU5</b>                                | <b>10,000 Gallon Fuel Oil Storage Tank</b>  |
| <b>EP6</b>                   | <b>EU6</b>                                | <b>Fuel Oil Day Storage Tanks</b>           |
| <b>EP7</b>                   | <b>EU7</b>                                | <b>3000 Gallon Fuel Oil Storage Tank</b>    |

## II. Plant-Wide Conditions

Facility Name: Stuart Municipal Utilities  
Permit Number: 04-VOP-002

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.206

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### Permit Duration

The term of this permit is: Five (5) years  
Commencing on: September 1, 2004  
Ending on: September 1, 2009

Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.208.

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### **Plant-Wide Emission Limits**

*The atmospheric emissions from the plant as a whole shall not exceed the following.*

Pollutant: NO<sub>x</sub>  
Emission Rate (tons/yr.): 95.0

The permittee shall demonstrate compliance with this limit through daily recordkeeping of all fuels burned in all engines at this facility. See Section III. of this permit for the monitoring, recordkeeping, and reporting requirements associated with this limit.

Authority for Requirement: 567 IAC 22.206(1)

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### **General Emission Limits**

*Unless specified otherwise in the Emission Point Specific Conditions, the following limitations apply to all emission points at this plant.*

Opacity (visible emissions): 40% opacity  
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO<sub>2</sub>): 500 parts per million by volume  
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter (state enforceable only)<sup>1</sup>:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).

Authority for Requirement: 567 IAC 23.3(2)"a" (as revised 7/21/1999)

Particulate Matter<sup>2</sup>:

The emission of particulate matter from any process shall not exceed the amount determined from Table I, except as provided in 567 — 21.2(455B), 23.1(455B), 23.4(455B) and 567 — Chapter 24. If the director determines that a process complying with the emission rates specified in Table I is causing or will cause air pollution in a specific area of the state, an emission standard of 0.1 grain per standard cubic foot of exhaust gas may be imposed.

Authority for Requirement: 567 IAC 23.3(2)"a" (prior to 7/21/1999)

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.

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<sup>1</sup> Pending approval into Iowa's State Implementation Plan (SIP), paragraph 567 IAC 23.3(2)"a" (as revised 07/21/1999) is considered *state enforceable only*.

<sup>2</sup> Paragraph 567 IAC 23.3(2)"a" (prior to 07/21/1999) is the general particulate matter emission standard currently in the Iowa SIP.

4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"

### **Compliance Statement**

Based on the certification of compliance from Stuart Municipal Utilities and unless otherwise noted in Section III of this permit, Stuart Municipal Utilities is in compliance with all applicable requirements and shall continue to comply with such requirements. For those applicable requirements which become effective during the permit term, Stuart Municipal Utilities shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.206(1)"c"

### III. Emission Point-Specific Conditions

Facility Name: Stuart Municipal Utilities  
Permit Number: **04-VOP-002**

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#### Emission Point ID Number: EP1

##### Associated Equipment

|                                     |   |
|-------------------------------------|---|
| Emission Unit ID:                   | EU1   |
| Emission Unit Description:          | 960 hp Fairbanks Morse internal combustion engine |
| Raw Material/Fuel:                  | No. 1 or No.2 fuel oil, natural gas, biodiesel    |
| Rated Capacity:                     | 960 hp, 6.54 MMBTU/hr (heat input)                |
| Control Equipment ID & Description: | None  |

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#### Applicable Requirements

##### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide

Emission Limit(s): 2.5 lbs/MMBTU heat input

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

##### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

- A. This emissions unit is permitted to operate as a diesel engine, burning 100% diesel fuel oil; it is also permitted to operate as a dual fuel engine, burning a mixture of natural gas and diesel fuel oil. The unit is also permitted to burn diesel fuel oil that contains up to 5% biodiesel.

- B. The sulfur content of the fuel oil burned shall not exceed 0.5 percent by weight. <sup>(1)</sup>
- C. The heat content of the fuel oil burned shall not exceed 140,000 BTU per gallon.

**Reporting & Record keeping:**

*The following records shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the IDNR. Records shall be legible and maintained in an orderly manner.*

- A. The permittee shall perform an analysis and shall maintain records on the sulfur content and the heat content of each shipment of oil received. Alternatively, the permittee shall have the oil supplier provide analyses on the sulfur content and the heat content of the oil received.
- B. The permittee shall maintain records on the percentage of biodiesel in the fuel oil received.
- C. The permittee shall keep the following daily records:
  - i. the amount of fuel oil burned in engine EU1 (gallons);
  - ii. the amount of natural gas burned in engine EU1 (standard cubic feet); and
  - iii. whether engine EU1 operated that day as a dual fuel engine (burning a mixture of fuel oil and natural gas) or as a diesel engine (burning 100% fuel oil).
- D. The permittee shall keep the following monthly records:
  - i. the amount of fuel oil burned in engine EU1 on the days it operated as a dual fuel engine (gallons);
  - ii. the amount of fuel oil burned in engine EU1 on the days it operated as a diesel engine (gallons);
  - iii. the amount of natural gas burned in engine EU1 (standard cubic feet);
  - iv. the total amount of fuel oil burned in engines EU1, EU2, EU3 when they operated as dual fuel engines (gallons);
  - v. the total amount of fuel oil burned in engines EU1, EU2, EU3, and EU4 when they operated as diesel engines (gallons);
  - vi. the total amount of natural gas burned in engines EU1, EU2, and EU3 (standard cubic feet);
  - vii. the amount of NO<sub>x</sub> emitted from engines EU1, EU2, EU3, and EU4 (tons). NO<sub>x</sub> emissions shall be calculated by using the following equations:

$$(1.) \text{NO}_{x\text{df}} = [(\text{VOLoil} \times 140,000 \text{ BTU/gal} \times 1 \text{ MMBTU} / 10^6 \text{ BTU}) + (\text{VOLng} \times 1020 \text{ BTU/scf} \times 1 \text{ MMBTU} / 10^6 \text{ BTU})] \times 3.5 \text{ lbs NO}_x/\text{MMBTU} \times 1 \text{ ton} / 2000 \text{ lbs}$$

Where:

NO<sub>x</sub>df = tons of NO<sub>x</sub> emitted from dual fuel engines

VOLoil = total amount of oil burned in engines EU1, EU2, and EU3 when operated as dual fuel engines (gallons)

VOLng = total amount of natural gas burned in engines EU1, EU2, and EU3 when operated as dual fuel engines (standard cubic feet)

3.5 lbs NO<sub>x</sub>/MMBTU = emission factor for NO<sub>x</sub> from dual fuel engines, based on the emission factor from AP-42, Table 3.4-1, 1996 edition, multiplied by a factor of 1.3.

(2.)NO<sub>x</sub>di = (VOLoil x 140,000 BTU/gal x 1 MMBTU/ 10<sup>6</sup> BTU) x 3.85 lbs NO<sub>x</sub>/MMBTU x 1 ton / 2000 lbs

Where:

NO<sub>x</sub>di = tons of NO<sub>x</sub> emitted from diesel engines

VOLoil = total amount of oil burned in engines EU1, EU2, EU3 and EU4 when operated as diesel engines (gallons)

3.85 lbs NO<sub>x</sub>/MMBTU = emission factor for NO<sub>x</sub> from diesel engines, based on the emission factor from AP-42, Table 3.4-1, 1996 edition, multiplied by a factor of 1.2.

Total monthly NO<sub>x</sub> emissions shall be determined by adding NO<sub>x</sub>df and NO<sub>x</sub>di.

- viii. The rolling 12-month total amount of NO<sub>x</sub> emissions from engines EU1, EU2, EU3, and EU4 (tons).
- E. If the rolling, 12-month total of the NO<sub>x</sub> emissions from engines EU1, EU2, EU3, and EU4 exceeds 70 tons per year, the permittee shall maintain the following daily records:
- the total emissions of NO<sub>x</sub> from engines EU1, EU2, EU3, and EU4 (tons), based on the equations in paragraph D(vii); and
  - the rolling 365-day total amount of NO<sub>x</sub> emissions from engines EU1, EU2, EU3, and EU4 (tons).
- Daily recordkeeping for NO<sub>x</sub> emissions shall continue until the rolling 12-month total amount of NO<sub>x</sub> emissions from engines EU1, EU2, EU3, and EU4 drops below 70 tons on the last day of a month. Monthly calculation of NO<sub>x</sub> emissions will then begin in the following month.
- F. The permittee shall submit reports that identify all exceedances of the rolling 12-month emission limitation of 95 tons per year for NO<sub>x</sub>. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

Authority for Requirement: 567 IAC 22.206(1)  
(1)567 IAC 23.3(3)"b"(1)

### **Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒**

**Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒**

Authority for Requirement: 567 IAC 22.206(1)"d"

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**Emission Point ID Number: EP2****Associated Equipment**

|                                     |  |
|-------------------------------------|--|
| Emission Unit ID:                   | EU2  |
| Emission Unit Description:          | 1600 hp Fairbanks Morse internal combustion engine |
| Raw Material/Fuel:                  | No. 1 or No. 2 fuel oil, natural gas, biodiesel    |
| Rated Capacity:                     | 1600 hp, 10.9 MMBTU/hr (heat input)                |
| Control Equipment ID & Description: | None   |

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**Applicable Requirements****Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide

Emission Limit(s): 2.5 lbs/MMBTU heat input

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

- A. This emissions unit is permitted to operate as a diesel engine, burning 100% diesel fuel oil; it is also permitted to operate as a dual fuel engine, burning a mixture of natural gas and diesel fuel oil. The unit is also permitted to burn diesel fuel oil that contains up to 5% biodiesel.
- B. The sulfur content of the fuel oil burned shall not exceed 0.5 percent by weight. <sup>(1)</sup>
- C. The heat content of the fuel oil burned shall not exceed 140,000 BTU per gallon.

Reporting & Record keeping:

*The following records shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the IDNR. Records shall be legible and maintained in an orderly manner.*

- A. The permittee shall perform an analysis and shall maintain records on the sulfur content and the heat content of each shipment of oil received. Alternatively, the permittee shall have the oil supplier provide analyses on the sulfur content and the heat content of the oil received.
- B. The permittee shall maintain records on the percentage of biodiesel in the fuel oil received.
- C. The permittee shall keep the following daily records:
  - i. the amount of fuel oil burned in engine EU2 (gallons);
  - ii. the amount of natural gas burned in engine EU2 (standard cubic feet); and
  - iii. whether engine EU2 operated that day as a dual fuel engine (burning a mixture of fuel oil and natural gas) or as a diesel engine (burning 100% fuel oil).
- D. The permittee shall keep the following monthly records:
  - i. the amount of fuel oil burned in engine EU2 on the days it operated as a dual fuel engine (gallons);
  - ii. the amount of fuel oil burned in engine EU2 on the days it operated as a diesel engine (gallons);
  - iii. the amount of natural gas burned in engine EU2 (standard cubic feet);
  - iv. the total amount of fuel oil burned in engines EU1, EU2, EU3 when they operated as dual fuel engines (gallons);
  - v. the total amount of fuel oil burned in engines EU1, EU2, EU3, and EU4 when they operated as diesel engines (gallons);
  - vi. the total amount of natural gas burned in engines EU1, EU2, and EU3 (standard cubic feet);
  - vii. the amount of NO<sub>x</sub> emitted from engines EU1, EU2, EU3, and EU4 (tons). NO<sub>x</sub> emissions shall be calculated by using the following equations:

$$(1.) \text{NO}_{x\text{df}} = [(\text{VOL}_{\text{oil}} \times 140,000 \text{ BTU/gal} \times 1 \text{ MMBTU} / 10^6 \text{ BTU}) + (\text{VOL}_{\text{ng}} \times 1020 \text{ BTU/scf} \times 1 \text{ MMBTU} / 10^6 \text{ BTU})] \times 3.5 \text{ lbs NO}_x/\text{MMBTU} \times 1 \text{ ton} / 2000 \text{ lbs}$$

Where:

NO<sub>x</sub>df = tons of NO<sub>x</sub> emitted from dual fuel engines

VOL<sub>oil</sub> = total amount of oil burned in engines EU1, EU2, and EU3 when operated as dual fuel engines (gallons)

VOL<sub>ng</sub> = total amount of natural gas burned in engines EU1, EU2, and EU3 when operated as dual fuel engines (standard cubic feet)

3.5 lbs NO<sub>x</sub>/MMBTU = emission factor for NO<sub>x</sub> from dual fuel engines, based on the emission factor from AP-42, Table 3.4-1, 1996 edition, multiplied by a factor of 1.3.

$$(2.)\text{NOx}_{di} = (\text{VOL}_{oil} \times 140,000 \text{ BTU/gal} \times 1 \text{ MMBTU} / 10^6 \text{ BTU}) \times 3.85 \text{ lbs NOx/MMBTU} \times 1 \text{ ton} / 2000 \text{ lbs}$$

Where:

$\text{NOx}_{di}$  = tons of NOx emitted from diesel engines

$\text{VOL}_{oil}$  = total amount of oil burned in engines EU1, EU2, EU3 and EU4 when operated as diesel engines (gallons)

3.85 lbs NOx/MMBTU = emission factor for NOx from diesel engines, based on the emission factor from AP-42, Table 3.4-1, 1996 edition, multiplied by a factor of 1.2.

Total monthly NOx emissions shall be determined by adding  $\text{NOx}_{df}$  and  $\text{NOx}_{di}$ .

- viii. The rolling 12-month total amount of NOx emissions from engines EU1, EU2, EU3, and EU4 (tons).
- E. If the rolling, 12-month total of the NOx emissions from engines EU1, EU2, EU3, and EU4 exceeds 70 tons per year, the permittee shall maintain the following daily records:
- i. the total emissions of NOx from engines EU1, EU2, EU3, and EU4 (tons), based on the equations in paragraph D(vii); and
  - ii. the rolling 365-day total amount of NOx emissions from engines EU1, EU2, EU3, and EU4 (tons).
- Daily recordkeeping for NOx emissions shall continue until the rolling 12-month total amount of NOx emissions from engines EU1, EU2, EU3, and EU4 drops below 70 tons on the last day of a month. Monthly calculation of NOx emissions will then begin in the following month.
- F. The permittee shall submit reports that identify all exceedances of the rolling 12-month emission limitation of 95 tons per year for NOx. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

Authority for Requirement: 567 IAC 22.206(1)  
<sup>(1)</sup> 567 IAC 23.3(3)"b"(1)

### **Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒**

**Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒**

Authority for Requirement: 567 IAC 22.206(1)"d"

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## Emission Point ID Number: EP3

### Associated Equipment

|                                     |  |
|-------------------------------------|--|
| Emission Unit ID:                   | EU3  |
| Emission Unit Description:          | 1600 hp Fairbanks Morse internal combustion engine |
| Raw Material/Fuel:                  | No. 1 or No. 2 fuel oil, natural gas, biodiesel    |
| Rated Capacity:                     | 1600 hp, 10.9 MMBTU/hr (heat input)                |
| Control Equipment ID & Description: | None   |

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### Applicable Requirements

#### **Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide

Emission Limit(s): 2.5 lbs/MMBTU heat input

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

- A. This emissions unit is permitted to operate as a diesel engine, burning 100% diesel fuel oil; it is also permitted to operate as a dual fuel engine, burning a mixture of natural gas and diesel fuel oil. The unit is also permitted to burn diesel fuel oil that contains up to 5% biodiesel.
- B. The sulfur content of the fuel oil burned shall not exceed 0.5 percent by weight. <sup>(1)</sup>
- C. The heat content of the fuel oil burned shall not exceed 140,000 BTU per gallon.

Reporting & Record keeping:

*The following records shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the IDNR. Records shall be legible and maintained in an orderly manner.*

- A. The permittee shall perform an analysis and shall maintain records on the sulfur content and the heat content of each shipment of oil received. Alternatively, the permittee shall have the oil supplier provide analyses on the sulfur content and the heat content of the oil received.
- B. The permittee shall maintain records on the percentage of biodiesel in the fuel oil received.
- C. The permittee shall keep the following daily records:
  - i. the amount of fuel oil burned in engine EU3 (gallons);
  - ii. the amount of natural gas burned in engine EU3 (standard cubic feet); and
  - iii. whether engine EU3 operated that day as a dual fuel engine (burning a mixture of fuel oil and natural gas) or as a diesel engine (burning 100% fuel oil).
- D. The permittee shall keep the following monthly records:
  - i. the amount of fuel oil burned in engine EU3 on the days it operated as a dual fuel engine (gallons);
  - ii. the amount of fuel oil burned in engine EU3 on the days it operated as a diesel engine (gallons);
  - iii. the amount of natural gas burned in engine EU3 (standard cubic feet);
  - iv. the total amount of fuel oil burned in engines EU1, EU2, EU3 when they operated as dual fuel engines (gallons);
  - v. the total amount of fuel oil burned in engines EU1, EU2, EU3, and EU4 when they operated as diesel engines (gallons);
  - vi. the total amount of natural gas burned in engines EU1, EU2, and EU3 (standard cubic feet);
  - vii. the amount of NO<sub>x</sub> emitted from engines EU1, EU2, EU3, and EU4 (tons). No<sub>x</sub> emissions shall be calculated by using the following equations:

$$(1.) \text{NO}_{x\text{df}} = [(\text{VOL}_{\text{oil}} \times 140,000 \text{ BTU/gal} \times 1 \text{ MMBTU} / 10^6 \text{ BTU}) + (\text{VOL}_{\text{ng}} \times 1020 \text{ BTU/scf} \times 1 \text{ MMBTU} / 10^6 \text{ BTU})] \times 3.5 \text{ lbs NO}_x/\text{MMBTU} \times 1 \text{ ton} / 2000 \text{ lbs}$$

Where:

NO<sub>x</sub>df = tons of NO<sub>x</sub> emitted from dual fuel engines

VOL<sub>oil</sub> = total amount of oil burned in engines EU1, EU2, and EU3 when operated as dual fuel engines (gallons)

VOL<sub>ng</sub> = total amount of natural gas burned in engines EU1, EU2, and EU3 when operated as dual fuel engines (standard cubic feet)

3.5 lbs NO<sub>x</sub>/MMBTU = emission factor for NO<sub>x</sub> from dual fuel engines, based on the emission factor from AP-42, Table 3.4-1, 1996 edition, multiplied by a factor of 1.3.

$$(2.)\text{NOx}_{\text{di}} = (\text{VOL}_{\text{oil}} \times 140,000 \text{ BTU/gal} \times 1 \text{ MMBTU} / 10^6 \text{ BTU}) \times 3.85 \text{ lbs NOx/MMBTU} \times 1 \text{ ton} / 2000 \text{ lbs}$$

Where:

$\text{NOx}_{\text{di}}$  = tons of NOx emitted from diesel engines

$\text{VOL}_{\text{oil}}$  = total amount of oil burned in engines EU1, EU2, EU3 and EU4 when operated as diesel engines (gallons)

3.85 lbs NOx/MMBTU = emission factor for NOx from diesel engines, based on the emission factor from AP-42, Table 3.4-1, 1996 edition, multiplied by a factor of 1.2.

Total monthly NOx emissions shall be determined by adding  $\text{NOx}_{\text{df}}$  and  $\text{NOx}_{\text{di}}$ .

- viii. The rolling 12-month total amount of NOx emissions from engines EU1, EU2, EU3, and EU4 (tons).
- E. If the rolling, 12-month total of the NOx emissions from engines EU1, EU2, EU3, and EU4 exceeds 70 tons per year, the permittee shall maintain the following daily records:
- i. the total emissions of NOx from engines EU1, EU2, EU3, and EU4 (tons), based on the equations in paragraph D(vii); and
  - ii. the rolling 365-day total amount of NOx emissions from engines EU1, EU2, EU3, and EU4 (tons).
- Daily recordkeeping for NOx emissions shall continue until the rolling 12-month total amount of NOx emissions from engines EU1, EU2, EU3, and EU4 drops below 70 tons on the last day of a month. Monthly calculation of NOx emissions will then begin in the following month.
- F. The permittee shall submit reports that identify all exceedances of the rolling 12-month emission limitation of 95 tons per year for NOx. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

Authority for Requirement: 567 IAC 22.206(1)  
<sup>(1)</sup> 567 IAC 23.3(3)"b"(1)

### **Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒**

**Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒**

Authority for Requirement: 567 IAC 22.206(1)"d"

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## Emission Point ID Number: EP4

### Associated Equipment

|                                     |  |
|-------------------------------------|--|
| Emission Unit ID:                   | EU4  |
| Emission Unit Description:          | 2593 hp Caterpillar internal combustion engine |
| Raw Material/Fuel:                  | No. 1 or No. 2 fuel oil, biodiesel             |
| Rated Capacity:                     | 2593 hp, 17.8 MMBTU/hr (heat input)            |
| Control Equipment ID & Description: | None   |

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### Applicable Requirements

#### **Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: 567 IAC 23.3(2)"d", (Iowa DNR Construction Permit 00-A-300-S1)

<sup>(1)</sup> An exceedance of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a", (Iowa DNR Construction Permit 00-A-300-S1)

Pollutant: PM<sub>10</sub>

Emission Limit(s): 3.5 lbs/hr

Authority for Requirement: Iowa DNR Construction Permit 00-A-300-S1

Pollutant: Sulfur Dioxide

Emission Limit(s): 0.89 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 00-A-300-S1

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

- A. The emissions unit is permitted to burn diesel fuel oil that contains up to 5% biodiesel.
- B. The sulfur content of the fuel oil burned shall not exceed 0.05 percent by weight. <sup>(1)</sup>
- C. The heat content of the fuel oil burned shall not exceed 140,000 BTU per gallon.

#### **Reporting & Record keeping:**

*The following records shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the IDNR. Records shall be legible and maintained in an orderly manner.*

- A. The permittee shall perform an analysis and shall maintain records on the sulfur content and the heat content of each shipment of oil received. Alternatively, the permittee shall have the oil supplier provide analyses on the sulfur content and the heat content of the oil received.
- B. The permittee shall maintain records on the percentage of biodiesel in the fuel oil received.
- C. The permittee shall keep daily records on the amount of fuel oil burned in engine EU4 (gallons).
- D. The permittee shall keep the following monthly records:
  - i. the amount of fuel oil burned in engine EU4 (gallons);
  - ii. the total amount of fuel oil burned in engines EU1, EU2, EU3 when they operated as dual fuel engines (gallons);
  - iii. the total amount of fuel oil burned in engines EU1, EU2, EU3, and EU4 when they operated as diesel engines (gallons);
  - iv. the total amount of natural gas burned in engines EU1, EU2, and EU3 (standard cubic feet);
  - v. the amount of NO<sub>x</sub> emitted from engines EU1, EU2, EU3, and EU4 (tons). NO<sub>x</sub> emissions shall be calculated by using the following equations:

$$(1.) \text{NO}_{x\text{df}} = [(\text{VOL}_{\text{oil}} \times 140,000 \text{ BTU/gal} \times 1 \text{ MMBTU} / 10^6 \text{ BTU}) + (\text{VOL}_{\text{ng}} \times 1020 \text{ BTU/scf} \times 1 \text{ MMBTU} / 10^6 \text{ BTU})] \times 3.5 \text{ lbs NO}_x / \text{MMBTU} \times 1 \text{ ton} / 2000 \text{ lbs}$$

Where:

NO<sub>x</sub>df = tons of NO<sub>x</sub> emitted from dual fuel engines

VOL<sub>oil</sub> = total amount of oil burned in engines EU1, EU2, and EU3 when operated as dual fuel engines (gallons)

VOLng = total amount of natural gas burned in engines EU1, EU2, and EU3 when operated as dual fuel engines (standard cubic feet)  
3.5 lbs NO<sub>x</sub>/MMBTU = emission factor for NO<sub>x</sub> from dual fuel engines, based on the emission factor from AP-42, Table 3.4-1, 1996 edition, multiplied by a factor of 1.3.

$$(2.)\text{NO}_{xdi} = (\text{VOLoil} \times 140,000 \text{ BTU/gal} \times 1 \text{ MMBTU} / 10^6 \text{ BTU}) \times 3.85 \text{ lbs NO}_x/\text{MMBTU} \times 1 \text{ ton} / 2000 \text{ lbs}$$

Where:

NO<sub>x</sub>di = tons of NO<sub>x</sub> emitted from diesel engines

VOLoil = total amount of oil burned in engines EU1, EU2, EU3 and EU4 when operated as diesel engines (gallons)

3.85 lbs NO<sub>x</sub>/MMBTU = emission factor for NO<sub>x</sub> from diesel engines, based on the emission factor from AP-42, Table 3.4-1, 1996 edition, multiplied by a factor of 1.2.

Total monthly NO<sub>x</sub> emissions shall be determined by adding NO<sub>x</sub>df and NO<sub>x</sub>di.

- vi. The rolling 12-month total amount of NO<sub>x</sub> emissions from engines EU1, EU2, EU3, and EU4 (tons).
- E. If the rolling, 12-month total of the NO<sub>x</sub> emissions from engines EU1, EU2, EU3, and EU4 exceeds 70 tons per year, the permittee shall maintain the following daily records:
- i. the total emissions of NO<sub>x</sub> from engines EU1, EU2, EU3, and EU4 (tons), based on the equations in paragraph D(v); and
  - ii. the rolling 365-day total amount of NO<sub>x</sub> emissions from engines EU1, EU2, EU3, and EU4 (tons).
- Daily recordkeeping for NO<sub>x</sub> emissions shall continue until the rolling 12-month total amount of NO<sub>x</sub> emissions from engines EU1, EU2, EU3, and EU4 drops below 70 tons on the last day of a month. Monthly calculation of NO<sub>x</sub> emissions will then begin in the following month.
- F. The permittee shall submit reports that identify all exceedances of the rolling 12-month emission limitation of 95 tons per year for NO<sub>x</sub>. The report shall be submitted no later than 30 days from the end of the month in which the exceedance occurred.

Authority for Requirement: 567 IAC 22.206(1)

<sup>(1)</sup> Iowa DNR Construction Permit 00-A-300-S1

**Emission Point Characteristics**

*This emission point shall conform to the specifications listed below.*

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| Stack Height, (ft, from the ground) | 40 Feet                              |
| Discharge Style                     | Vertical, unobstructed               |
| Stack Opening, (inches, dia.)       | 16 inches                            |
| Exhaust Temperature (°F)            | 901° F                               |
| Exhaust Flowrate (scfm)             | 5241 scfm                            |
| Authority for Requirement           | IDNR Construction Permit 00-A-300-S1 |

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒**

**Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒**

Authority for Requirement: 567 IAC 22.206(1)"d"

**Emission Point ID Number: EP5**Associated Equipment

|                                     |                          |
|-------------------------------------|--------------------------|
| Emission Unit ID:                   | EU5                      |
| Emission Unit Description:          | Storage Tank             |
| Raw Material/Fuel:                  | Fuel Oil                 |
| Rated Capacity:                     | 10000 gallons – capacity |
| Control Equipment ID & Description: | None                     |

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**Applicable Requirements****Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

No emission limits for this unit.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

No operational limits for this unit.

**Reporting & Record keeping:**

*The following records shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the IDNR. Records shall be legible and maintained in an orderly manner.*

No record keeping requirements for this unit.

Authority for Requirement: 567 IAC 22.206(1)

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒**

**Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒**

Authority for Requirement: 567 IAC 22.206(1)"d"

## Emission Point ID Number: EP-6

### Associated Equipment

|                                     |                        |
|-------------------------------------|------------------------|
| Emission Unit ID:                   | EU6                    |
| Emission Unit Description:          | Day Tanks              |
| Raw Material/Fuel:                  | Fuel Oil               |
| Rated Capacity:                     | 300 gallons – capacity |
| Control Equipment ID & Description: | None                   |

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### Applicable Requirements

#### **Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

No emission limits for this unit.

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

No operational limits for this unit.

#### **Reporting & Record keeping:**

*The following records shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the IDNR. Records shall be legible and maintained in an orderly manner.*

No record keeping requirements for this unit.

Authority for Requirement: 567 IAC 22.206(1)

#### **Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒**

**Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒**

Authority for Requirement: 567 IAC 22.206(1)"d"

## **Emission Point ID Number: EP7**

### Associated Equipment

|                                     |                         |
|-------------------------------------|-------------------------|
| Emission Unit ID:                   | EU7                     |
| Emission Unit Description:          | Storage Tank            |
| Raw Material/Fuel:                  | Fuel Oil                |
| Rated Capacity:                     | 3000 gallons – capacity |
| Control Equipment ID & Description: | None                    |

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### **Applicable Requirements**

#### **Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

No emission limits for this unit.

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

No operational limits for this unit.

#### **Reporting & Record keeping:**

*The following records shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the IDNR. Records shall be legible and maintained in an orderly manner.*

No record keeping requirements for this unit.

Authority for Requirement: 567 IAC 22.206(1), (Iowa DNR Construction Permit 00-A-301)

#### **Emission Point Characteristics**

*This emission point shall conform to the specifications listed below.*

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| Stack Height, (ft, from the ground) | 1 Foot                            |
| Discharge Style                     | Downward                          |
| Stack Opening, (inches, dia.)       | 2 inches                          |
| Exhaust Temperature (°F)            | 70° F                             |
| Exhaust Flowrate (scfm)             | Displacement                      |
| Authority for Requirement           | IDNR Construction Permit 00-A-301 |

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒**

**Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒**

Authority for Requirement: 567 IAC 22.206(1)"d"

## IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code (IAC) chapter 22.

### A. Eligibility

1. Sources covered by this permit must meet the eligibility requirements for a voluntary operating permit as described in 567 IAC 22.201.

2. If the issuance of a construction permit acts to make the source no longer eligible for a voluntary operating permit, then the source shall, in accordance with subparagraph 22.105(1)"a"(6) not operate without a Title V operating permit, and the source shall be subject to enforcement action for operating without a Title V operating permit. 567 IAC 22.207(1)

### B. Duty To Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. 567 IAC 22.203(1)"c"

### C. Access to the Permit

This voluntary operating permit is to be kept at the location of the source. 567 IAC 22.206(1)"h"

### D. Requirement to Apply for a Title V Permit

The permittee may be required to apply for and obtain a Title V operating permit prior to the expiration of this voluntary operating permit. The circumstances under which this may occur are: the source becomes subject to a newly promulgated standard or other requirement pursuant to 567 IAC 22.101 which requires the permittee to apply for a Title V permit; issuance of construction permits which make the source no longer eligible for a voluntary operating permit pursuant to 567 IAC 22.207; or the deferment period for non-major sources pursuant to subrule 22.101(2) ends.

Applications for a Title V permit shall be submitted within 12 months of the date a Title V permit is required. 567 IAC 22.101(2), 567 IAC 22.201(2)"b"

### E. Permit Renewal

1. Sources covered by a voluntary operating permit shall reapply for a voluntary operating permit at least 6 months but not more than 12 months prior to the date of expiration of the permit. 567 IAC 22.203(1)"a"(2)

Requirements pertaining to making a voluntary operating permit application are contained in 567 IAC 22.203.

2. Each application for renewal of a voluntary operating permit shall include a list of construction permits issued during the term of the voluntary operating permit and shall state the effect of each of these construction permits on the conditions of the voluntary operating permit. Applications for renewal shall be accompanied by copies of all construction permits issued during the term of the voluntary operating permit. 567 IAC 22.207(2)

3. To be considered as complete, an application must provide all information required pursuant to subrule 22.203(2). 567 IAC 22.203(1)"b"

### F. Duty to Comply

1. The permittee must comply with all conditions of the voluntary operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination and revocation; and, for an immediate requirement to obtain a Title V operating permit. 567 IAC 22.206(1)"i"

2. All terms and conditions in the voluntary operating permit, including provisions to limit a source's potential to emit, are enforceable by the

administrator and citizens under the Act. 567 IAC 22.206(2)"b"(1)

3. Any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements shall be designated in the permit as not being federally enforceable. 567 IAC 22.206(2)"b"(2)

4. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. 567 IAC 22.206(1)"j"

#### **G. Certification Requirement for Related Documents**

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. 567 IAC 22.203(1)"d"

#### **H. Voluntary Operating Permit Fee**

Each source in compliance with a current voluntary operating permit shall be exempt from Title V operating permit fees. 567 IAC 22.204

#### **I. Inspection of Premises, Records, Equipment, Methods and Discharges**

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

- enter upon the permittee's premises where an emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and,

- sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements. 455B.103(4)

#### **J. Duty to Provide Information**

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit. 567 IAC 22.206(1)"m"

#### **K. Hazardous Release**

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity strength and toxicity of the substance, creates an immediate or potential danger to public health, safety or to the environment. A verbal report shall be made to the IDNR at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). 567 IAC Chapter 131-State Only

#### **L. Excess Emissions and Excess Emissions Reporting Requirements**

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of

excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting.

a. *Oral Reporting of Excess Emissions.* An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the IDNR within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1) ) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

- the identity of the equipment or source operation from which the excess emission

originated and the associated stack or emission point;

- the estimated quantity of the excess emission;
- the time and expected duration of the excess emission;
- the cause of the excess emission;
- the steps being taken to remedy the excess emission; and,
- the steps being taken to limit the excess emission in the interim period.

b. *Written Reporting of Excess Emissions.* A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the IDNR within seven days of the onset of the upset condition, and shall include as a minimum the following:

- the identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point;
- the estimated quantity of the excess emission;
- the time and duration of the excess emission;
- the cause of the excess emission;
- the steps that were taken to remedy and to prevent the recurrence of the incident of excess emission;
- the steps that were taken to limit the excess emission; and,
- if the owner claims that the excess emission was due to malfunction, documentation to support this claim. 567 IAC 24.1(1) and 24.1(4)

3. Emergency Defense for Excess Emissions. For the purposes of a voluntary operating permit, an "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. 567 IAC 22.206(2)"f"

#### **M. Notification Requirements for Sources That Become Subject to NSPS or NESHAP Regulations**

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. 567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)

#### **N. Duty to Obtain Construction Permits**

Unless exempted under 567 IAC 22.1(2), the permittee shall not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8 or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5.

#### **O. Suspension, Termination, and Revocation of Voluntary Operating Permits**

1. This permit may be modified, revoked, reopened, reissued, or terminated for cause. 567 IAC 22.208(1)

2. If the voluntary permit is suspended, terminated or revoked by the IDNR, the notice of such action shall be served on the applicant or permittee by certified mail, return receipt requested. The notice shall include a statement detailing the grounds for the action sought and the proceeding shall in all other respects comply with the requirements of rule 561-7.16(17A.455A). 567 IAC 22.208(2)

#### **P. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. 567 IAC 22.206(1)"l"

#### **Q. Fugitive Emissions**

Fugitive Emissions from a source shall be included in the permit in the same manner as stack emissions, regardless of whether the source category in question is included in the list of sources contained in the definition of major source. 567 IAC 22.206(2)"a"

#### **R. Asbestos**

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when conducting any renovation or demolition activities at the facility. 567 IAC 23.1(3)"a" and 23.2

#### **S. Open Burning**

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. 567 IAC 23.2 except 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only

#### **T. Stratospheric Ozone and Climate Protection (Title VI) Requirements**

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.

b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives

Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

#### **U. Disclaimer**

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

#### **V. Prevention of Accidental Release: Risk Management Plan**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the plan shall be filed with all appropriate authorities by the deadline specified by EPA. *40 CFR 68*

#### **W. Facility Operation**

All equipment, facilities and systems covered under the terms and conditions of this Voluntary Operating Permit shall at all times be maintained in good working order and be operated in the manner consistent with the information provided in the application, manufacturer's recommended procedures, associated plans, and specifications. *567 IAC 24.2(1)*

#### **X. Severability**

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.206(1)"a"*

#### **Y. Credible Evidence**

As stated in 567 IAC 21.5 and also in 40 CFR Part 60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 31.

**Z. Contacts List**

The owner shall send correspondence regarding this permit to the following to:

Mr. Douglas A. Campbell, Operating Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Urbandale, IA 50322  
Telephone: (515) 281-8930  
Fax: (515) 242-5094

The owner shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Urbandale, Iowa 50322  
Telephone: (515) 242-6001  
FAX: (515) 242-5127

The owner shall send reports and notifications to:

|   |  |
|---|--|
| Compliance Unit Supervisor<br>Air Quality Bureau<br>Iowa Department of Natural Resources<br>7900 Hickman Road, Suite 1<br>Urbandale, IA 50322<br>Telephone: (515) 281-8448<br>Fax: (515) 242-5127 | <b>Field Office 4</b><br>1401 Sunnyside Lane<br>Atlantic, IA 50022<br>Telephone: (712) 243-1934<br>Fax: (712) 243-6251 |
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